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| EXAMINER | |
|---|---|
| CHOI, FRANK I | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/756,269 | HALOW, GEORGE M. | |
| | Examiner | Art Unit | |
| | FRANK I. CHOI | 1616 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *20 December 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-9,13-41 and 54-66* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,13-41 and 54-66* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-9, 13-41,54-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/43654 in view of Cleveland et al. (US Pat. 6,048,901), Di Palma et al., Wood et al. (US Pat. 5,498,425), Vining (US Pat. 5,782,762), Robb-Nicholson, Christine et al. (US Pat. 3,330,311), Matsuoka et al. and Afridi et al..

WO 98/43654 teach a composition and method of purging the colon prior to colonoscopy, radiographic examination or bowel surgery containing sodium phosphate salts, including mono and dibasic salts) combined with polyethylene glycol and bisacodyl and that the composition can be administered in solid or liquid (aqueous) form (Pgs. 1, 7, 11). It is taught the combination of compounds are present in amounts effective to produce a purgative and/or laxative composition and that one of ordinary skill in the art may readily determine the amount and types of compounds/compositions to used in treating a particular patient (Pg. 11).

Cleveland et al. teach that polyethylene glycol is effective in reducing intestinal gases, cramping and/or anorectal irritation associated with constipation and which can be exacerbated by use of laxatives (Column 1, lines 14-30). It is taught that the composition is preferably substantially free of ancillary electrolytes as salts may exert a constipative effect (Column 45-

58). It is taught that the PEG polymer used is solid at room temperature and soluble with water and may be mixed with water or juice (Column 1, lines 58-68, Column 2, lines 1-20).

Di Palma et al. disclose that the use of PEG-3350 at 68 g and 85 g, in 500 ml flavored water, resulted in complete evacuation within 24 hours and 51 g of PEG-3350 resulted in 80% evacuation within 24 hours (Page S148). It is disclosed that there were no changes in measured electrolytes, calcium, glucose, BUN, creatine or serum osmolality (Page S148).

Wood et al. ('425) teach that bisacodyl is used for bowel clearance. It is taught that powders may be packaged in aluminum lined paper containers and that such packets are economical and easier to ship and store (Column 1, lines 6-12, Column 3, lines 4-7).

Vining teaches that in addition to using laxatives the patient should be put on a clear liquid diet to obtain a clean bowel for examination (Column 8, lines 1-20).

Robb-Nicholson discloses that preparations for sigmoidoscopy will vary among doctors (Full Text). A preparation is disclosed where a clear liquid diet, which can include water, clear soup, iced tea, juice or gelatin, is implemented the morning of the day before the procedure and two 1 ½ doses of Fleet Phospho-soda, added to a glass of water or juice, one at 5pm and the other at 8pm, are taken by the patient (Full Text).

Christine et al. disclose that packets containing powdered tea, soups, beverage mixes and the like, wherein the packets can subsequently be used in any desired manner including formulating or making beverages by using hot or cold water (Column 6, lines 36-45).

Matsuoka et al. disclose the combination of 45 ml of oral sodium phosphate (Fleet®) diluted with 45 ml of water and 1000 ml of PEG electrolyte lavage which was tolerated well and resulted in satisfactory cleansing of the colon (Page 192, Abstract). It is disclosed that this

modified method using smaller amount of oral lavage is useful in the preparation for colonoscopy (Page 192, Abstract). It is disclosed that 100 ml of Fleet ® contains 48 g of sodium biphosphate, 18 g sodium phosphate and 100 ml of water (Page 189). It is disclosed that one drawback of the above combination is that the patient may experience nausea due to salty taste, however, that there was no serious side effects (Page 191).

Afridi et al. disclose the combination of two 1 ½ ounce doses of Fleet Phospho-Soda, each dose with 4 ounces of water, and bisacodyl taken the night before the colonoscopy (Page 486, Materials and Methods). It is disclosed that PEG-ES lavage is in use because it allowed rapid cleansing of the colon, however, that about 5%-20% patients have difficulty in drinking the the large volume of liquid (4L) required or may not be able to complete the preparation because of nausea, vomiting or abdominal discomfort (pg. 488). It is disclosed that this has led to the search for alternative, rapidly acting preparations that require less fluid intake and are easier to tolerate (Page. 488). It is disclosed that patients found preparation with sodium phosphate-bisacodyl to be significantly easier than with PEG-ES lavage and that 20% of patients undergoing PEG-ES lavage were unable to complete the preparation compared with only 4.2% of patients prepared with sodium phosphate-bisacodyl (Page 488).

The prior art discloses combination of sodium phosphate salts with one or more purgative or laxative compounds, including PEG and bisacodyl, for evacuating the bowl for colonoscopy. The difference between the prior art and the claimed invention is that the prior art does not expressly disclose the combination sodium phosphate and PEG for use as a bowel cleanser which does not contain additional electrolytes. However, the prior art amply suggests the same as the prior art discloses the combination of PEG and sodium phosphate for use as a bowel cleanser,

that PEG can be used without ancillary electrolytes and that PEG mixed with 500 ml of water is effective as a laxative without there being changes in measured electrolytes. As such, it would have been well within the skill of and one of ordinary skill in the art would have been motivated to modify the prior art as above with the expectation that the combination of PEG and sodium phosphate would be effective as a bowel cleanser for use in clearing bowel prior to examination procedures without the use of other electrolytes. Further, the prior art discloses that clear liquid diets are typically used in preparation of colonoscopy, that clear liquid diets can include water, soups, teas and juices and powdered products in packets, including soups, teas and juices, that can be reconstituted with hot or cold water. As such, it would have been well within the skill of one ordinary skill in the art to combine packets of the powdered colonic purgative with packets of clear liquid diet powders, such as soups, teas and juices, with the expectation that said combination would be convenient for the patient as the patient would not have to separately obtain the necessary components for a clear liquid diet and the packets would clearly, by virtue of not having the liquid component, be less bulky than the reconstituted products. Furthermore, the prior art discloses the combination of sodium phosphates with bisacodyl that the same is effective in cleansing the colon and is well tolerated versus PEG-ES lavage solutions. As such, one of ordinary skill in the art would expect that administration of bisacodyl would be a suitable adjunct for bowel cleansing. Finally, the prior art discloses amounts and doses of sodium phosphate salts and PEG that fall within the scope of or are near the claimed doses and amounts and are effective as laxatives and/or bowel cleansing. As such, it would have been well within the skill of and of ordinary skill in the art would have reason to use various amounts and doses as desired, including that claimed, depending on the desired effect of cleansing the bowel.

The Examiner has duly considered the Applicant's arguments but deems them unpersuasive for the reasons set forth in the prior Office Actions and the further reasons below.

The Supreme Court in *KSR International Co. v. Teleflex Inc.*, held the following:

(1) the obviousness analysis need not seek out precise teachings directed to the subject matter of the challenged claim and can take into account the inferences and creative steps that one of ordinary skill in the art would employ;

(2) the obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion and motivation, or by overemphasis on the importance of published articles and the explicit content of issued patents;

(3) it is error to look only the problem the patentee was trying to solve-any need or problem known in the filed of endeavor at the time of invention and addressed by the prior art can provide a reason for combining the elements in the manner claimed;

(4) it is error to assume that one of ordinary skill in the art in attempting to solve a problem will be led only to those elements of prior art designed to solve the same problem-common sense teaches that familiar items may have obvious uses beyond their primary purposes, and in many cases one of ordinary skill in the art will be able to fit the teachings of multiple patents together like pieces of a puzzle (one of ordinary skill in the art is not automaton);

(5) it is error to assume that a patent claim cannot be proved obvious merely by showing that the combination of elements was "obvious to try". *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396, 1397 (U.S. 2007).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on

combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

The Applicant argues that claims exclude electrolytes. However, only claims 1-9, 13-15, 37-40 exclude electrolytes. Claims 16-30, 41, 54-62 do not specifically exclude electrolytes from being present in the aqueous medium. Claims 31-36 do not specifically exclude electrolytes from the clear liquid diet or flavor pack. The Monroe Scheiner, M. D. Affidavit (12/20/2007) does not provide support for the argument that all the claims exclude electrolytes. In the first instance, as filed, the affidavit incorrectly identifies Exhibit A as containing product information about chicken broth (Exhibit A contains Nulytely ®; Exhibit B is incorrectly identified as containing product information about JELL-O® (Exhibit B contains colyte®); Exhibit C is incorrectly identified as containing product information as to Nulytely ® (Exhibit C contains Natural Goodness TM Chicken Broth); and Exhibit D is incorrectly identified as containing product information as to Colyte® (Exhibit D contains JELL-O®). In any case, the affiant's assertion that clear liquid diets, specifically chicken broth, and flavor packs would not provide electrolytes is incorrect. The Affiant acknowledges that electrolytes include sodium, potassium, chloride and phosphate. The Colyte® description of flavor pack contains saccharin sodium which when dissolved in solution will provide the electrolyte sodium. The product

description of Natural Goodness TM Chicken Broth indicates that the same contains sodium, an electrolyte. Even if the affiant had been correct, which he was not, this would have only supported the conclusion that the flavor packs in Colyte® contained no electrolytes or Natural Goodness TM chicken broth not that flavor packs in general or clear liquid diets or even chicken broth in general would contain no electrolytes. See also Campbell's Center for Nutrition & Wellness-Fluids and Exercise (Natural Goodness TM chicken broth contains the same concentrations of electrolytes as blood; diluted fruit juices, sports drinks and broth-based soups can replace lost electrolytes). Similarly, the affiant is incorrect as to JELL-O® containing no electrolytes in that JELL-O® contains disodium phosphate and potassium (See Kraftfoods.com Product Information JELL-O).

Contrary to the Applicant's arguments, WO 98/43654 does teach the combination of PEG and sodium phosphates as indicated above. Further, the Applicant's argument as to the disclosure simply being an attempt to preempt future innovations which is prohibited by the Patent Office is without merit. As set forth in KSR, "obvious to try" can be a reason supporting the obviousness of the claimed invention. Further, the rejection herein is based on a combination of references, as such, there is no requirement that WO 98/43654 disclose the exclusion of electrolytes. For the same reason, there is no requirement that a single reference disclose the entire claimed invention. The standard for obviousness is not whether the claimed invention would have been obvious to Afridi et al. or Matsuoka et al.. As such, any speculation as to what Afridi et al. and Matsuoka et al. should have done or why they did what they did is insufficient to overcome the rejection herein. Also, any speculation as to why the compositions have not been in use for years (assuming the same is true) goes to the issue of novelty not obviousness. There

is no requirement for obviousness that there be some teaching that someone had actually combine sodium phosphate and PEG, without electrolytes, and used as a bowel evacuant only that said combination and use would have been obvious to one of ordinary skill in the art. The Applicant acknowledges that clear liquid diets, flavoring and packets with bowel cleansing composition are known in the art. Since the rejection is based on a combination of references, there is no requirement that Wood et al, Vining, Robb-Nicholson or Christine et al. specifically disclose the combination with a PEG/sodium phosphate composition without electrolytes.

The Examiner has duly considered the Monroe Scheiner, M.D. Affidavit (12/20/2007) but deems the same unpersuasive for the reasons above and the further reasons below. The Affiant indicates that unpredictability remains in the area of medicine relative to bowel cleansing methods and preparations and that each new method or preparation must be extensively tested for safety and efficacy before wide spread use. The Affiant provides no factual evidence supporting said assertions and, even if valid, the Affiant has not shown that extensive testing for safety and efficacy would be outside the ability of one of ordinary skill in the art or that the same would require undue experimentation. In any case, obviousness does not require absolute predictability, only a reasonable expectation of success, i.e., a reasonable expectation of obtaining similar properties. See, e.g., *In re O 'Farrell*, 853 F.2d 894, 903, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988). See also *In re Brana* , 51 F.3d 1560, 34 USPQ2d 1436 (Fed. Cir. 1995) (FDA approval, however, is not a prerequisite for finding a compound useful within the meaning of the patent laws. *Scott v. Finney*, 34 F.3d 1058, 1063, 32 USPQ2d 1115, 1120 (Fed.Cir. 1994). Usefulness in patent law, and in particular in the context of pharmaceutical inventions, necessarily includes the expectation of further research and development). Further, whether

persons of ordinary skill in the art disagree as to the safety of a product or techniques does not determine the issue of obviousness. The issue regarding obviousness is whether the differences embodied in a combination product and the result so produced would have been non-obvious to a person of ordinary skill in the art, not whether there was a controversy over whether such was safe. See e.g. *In Re Jansen*, 525 F2d 1059, 187 USPQ 743 (Cust. & Pat. App., 1975).

The Affiant asserts that, in general, a laxative is not the same as a bowel cleansing preparation, that a laxative does not generally cleanse the bowel of stool to permit an adequate examination of the colon by colonoscopy and a bowel cleansing preparation would generally not be used as a laxative. The Affiant, however, does not provide factual evidence supporting said assertions and by the use of the term "in general" or "generally" does not preclude said use. In any case, the Affiant provides no evidence that a laxative cannot be combined with a compound used for bowel evacuation. For example, as indicated above, sodium phosphate was combined with bisacodyl. Further, as indicated above, PEG alone without electrolytes is used as a laxative and the prior art, as indicated above, suggests the combination of sodium phosphates with laxatives.

The Affiant asserts that he has read WO 98/43654 and that the same does not provide information as to the recommended dosage, duration of treatment or contraindications. The rejection herein is based on a combination of references. The mere fact that WO 98/43654 does not specifically disclose dosage, duration of treatment or contraindications is not sufficient. As indicated above, the safety of a combination does determine the issue of obviousness. As such, the speculative possible contraindications and extensive testing for safety does not determine the issue of obviousness. Further, the Affiant provides no evidence that knowledge as to dosage,

duration of treatment and contraindications are outside the knowledge of one of ordinary skill in the art or that that the other references do not suggest or would not allow one of ordinary skill in the art to arrive at an appropriate concentration, dosage or duration of treatment. The Affiant has not provided evidence that extensive testing and evaluation is beyond the skill of or outside normal practice of one of ordinary skill in the art. The Affiant has not provide any factual evidence that the effects of the compounds listed in WO 98/43654 are unknown and unpredictable. As indicated above, the prior art provide amounts and dosages for both PEG alone which acts a laxative and sodium phosphate preparations which are used as bowel evacuants. Finally, whether or not electrolytes would be necessary or unnecessary, as indicated above, claims 16-30, 41, 54-62 do not exclude their presence in the aqueous medium or kit.

Therefore, the claimed invention, as a whole, would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention has been collectively taught by the combined teachings of the references.

***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-9, 13-41,54-66 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9, 13-30, 35-40 of copending Application No. 10/194251. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims 1-30, 32,33, 35, 36-40 of the '251 application anticipate claims 1-9, 13-36, 63-66 of the present Application in that the '251 application claims amount ranges of the same components which fall within the ranges in the present application. Claims 37-41 are obvious of the claims of the '251 application in that the '251 application discloses amount ranges of the sodium phosphates and amount ranges of PEG which falls within the range of the PEG in the present claims. The difference between the claims of '251 application and the claims of the present invention is that the PEG is water-soluble and in a dry dosage form which is subsequently dissolved in water for use, whereas the claims of the present Application claim a PEG which liquid at room temperature and is in a liquid dosage form which optionally can be combined with an aqueous medium. However, it is well within the skill of one ordinary skill in the art to modify the prior art as above with the expectation that when the '251 application composition is dissolved in an aqueous medium for use, the PEG contained therein will be liquid at room temperature. As such, claims 37-41 are an obvious modification of the claims of the '251 application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

A facsimile center has been established in Technology Center 1600. The hours of operation are Monday through Friday, 8:45 AM to 4:45 PM. The telecopier number for accessing the facsimile machine is 571-273-8300.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Choi whose telephone number is (571)272-0610. Examiner maintains a compressed schedule and may be reached Monday, Tuesday, Thursday, Friday, 6:00 am – 4:30 pm (EST).

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Johann R. Richter, can be reached at (571)272-0646. Additionally, Technology Center 1600's Receptionist and Customer Service can be reached at (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frank Choi
Patent Examiner
Technology Center 1600
April 14, 2008

/Johann R. Richter/
Supervisory Patent Examiner, Art Unit 1616